## **Recensement Census**



REPORT NO. 23

ANALYSIS OF INCOME COMPONENTS
NATIONAL CENSUS TEST (N.C.T.)
NOVEMBER, 1993

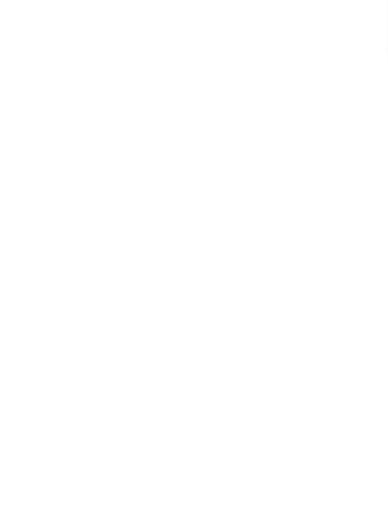
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NATIONAL CENSUS TEST (N.C.T.)
NOVEMBER, 1993

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Surveys Analysis Division
JUNE 7, 1993

## 1993 CENSUS NATIONAL TEST - INCOME QUESTIONS

#### EXECUTIVE SUMMARY

- The proposed questions on income for 1996 are identical to the 1991 Census. These questions were included in the 1993 National Census Test primarily to evaluate the feasibility of the proposed new "rule of six" for field follow-up. However, the test results were analyzed to examine other aspects also.
- Response rates for the income questions were lower from the 1993 Test than those obtained from the 1991 Census. This is not a cause for concern, however, since the 1993 Test results were better than those from the 1988 National Census Test.
- As in the past, non-response was highest among the young and the elderly.
- Key entry errors reduced the utility of income data from the Test. The income statistics (e.g. average income from various sources) could not be compared with those from other source because of these errors. (This underlines the need for effective quality control during data capture and head office processing).
- With a slight modification, the field edits for income used in the Test have been accepted.
- Results of the Edit Failure Study reinforce the importance of follow-up for the income questions.
- About 1 in 10 households expressed difficulties with some of the Census questions. Half of these indicated difficulties with the income question(s), with recall problems being the most common source. (This was not surprising consider the long time lag between the test date and the income reference year).
- About 1 in 5 households indicated an objection to some of the Census questions. Most of these objections related to income question(s). The common concern seemed to be the personal or confidential nature of income information.
- Respondents who indicated difficulties and/or objections frequently responded to the income questions. Very few instances of absolute refusal to answer the income questions were seen among these respondents.
- In spite of the limited use of the guide, there is still a need to provide respondents with required explanations for content.



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#### 1 INTRODUCTION

In preparation for the 1996 Census, a National Census Test (NCT) was undertaken in November, 1993, primarily to examine the feasibility of various questions. In addition to the content portion of the NCT, several other aspects related to the Census operation were tested. Through a series of steps, or questions, one person in each household was asked for information on respondent burden, difficulties with wording of questions and usefulness of the Census Guide. Also conducted as part of the NCT was the Edit Failure Study, designed to measure the impact of follow-up on response rates. In terms of income content, the NCT contained the same eleven questions on sources of income as asked in the 1991 Census.

There were two basic sample frames for the test; the Labour Force Survey sample frame, intended to provide high quality estimates for the general population, and a series of special population samples intended to provide specific information on selected target groups. In tables which compare response rates to census results, the Labour Force Sample frame universe has been used. Depending upon the comparisons being made, the data may or may not have been weighted.

The data derived from the National Census Test must be viewed in the light of the following:

- There was no public relations effort associated with the test as is usually the case with the Census;
- The grooming, key verification and Head Office operations, which contribute substantially to overall data quality in the Census, were either not used or were modified significantly for the test;
- 3. The time lag between the income reference period (calendar year 1992) and the test (November, 1993) was substantial.

## 2. OVERALL RESPONSE TO INCOME - N.C.T.

The 1993 N.C.T. repeated the eleven questions on income sources asked in the 1991 Census. The questions were subject to a rudimentary editing algorithm which allowed the derivation of "source response codes" and "record response codes" in a manner similar to that used during actual census processing. This allowed records to be divided into three broad groups for comparison with the 1991 Census. Records were assigned a code which indicated they were (a) respondents to the income questions (b) partial respondents to the income questions (b) partial respondents to the income question or (c) non-respondents to the income question. One major difference exists between the two methods of derivation; in the Census, records reporting both sources and total income were examined, and where there was a difference between the sum of all sources and total income, these records were classified as partial respondents and routed for imputation of the missing source(s). For purposes of the N.C.T. these records were treated as respondents.



Table 1 provides a distribution of the population 15 years and over by sex, age groups and response to the income questions. As could be expected, response was lower in the N.C.T. than the 1991 Census for both sexes and in all age groups. Overall, 76% of individuals 15 years and over were considered respondents to income in the N.C.T., compared with 82.4% in the 1991 Census. The proportions of respondents among men and women in the N.C.T. were almost identical, 75% and 76% respectively.

Non-response was highest among those 15 to 24 years, followed by those aged 65 and over. However, among those 15 to 24 years, non-response was lower in the N.C.T. (14.3%) than in the 1991 Census (15.0%), the only age group to show reduced non-response compared to the Census. Among those aged 25 to 64, non-response in the N.C.T. was 1 percentage point higher than in the Census, 9.4% compared with 8.4%.

Partial response to the income questions, that is, indication of income but only some values provided, was highest among the elderly. This is not surprising as a similar pattern emerged from the 1988 National Census Test, indicating that the elderly, more so than any other age group, had problems providing or estimating their annual income for 1992 in November of 1993.

It should be noted that field edit and follow-up for the NCT was different than in the 1991 Census. In 1991, the income question was designated a mandatory question, i.e. if unanswered, then follow-up had to be attempted. For the NCT, a new "rule of six" was adopted which specified that if 6 or more questions were unanswered, then follow-up was to be attempted. The impact of the change in these field procedures is covered in NCT Report # 10, Edit Failure and Response Rates. The conclusion of that report indicates that ". the implementation of the rule of six seems to have had minimal effect on the level of incoming data quality (in terms of after follow-up non-response rates)". This conclusion is supported by the concordance of response rates (and therefore non-response rates) between the NCT and the 1991 Census from Table 2.

## 3. RESPONSE TO INCOME SOURCES - N.C.T.

Table 2. provides a comparison of the final response rates and the incidence rates to each of the sources of income in the N.C.T. and the 1991 Census. The comparison of response rates is very favourable. Other than wages, where the response to wages was 2.4 percentage points lower in the N.C.T. than in the Census, response to all other sources differed from Census by 1 percentage point or less. Response to total income, however, was 4.4 percentage points lower in the N.C.T. (87.1%) than in the Census (91.5%). Nevertheless, the position is considered very reasonable given the timing of the test.

TABLE 1. PERCENTAGE DISTRIBUTION OF POPULATION 15 YEARS AND OVER BY SEX, AGE GROUPS AND RESPONSE TO INCOME QUESTIONS, 1993 NCT (LFS SAMPLE-WEIGHTED) AND 1991 CENSUS

| BOTH SEXES          | TO           | TAL.       | 15 -         | - 24      | 25 -      | - 64      | 65        |          |
|---------------------|--------------|------------|--------------|-----------|-----------|-----------|-----------|----------|
| BOTH OLALO          |              | 91 CENSUS  | 93 N.C.T.    | 91 CENSUS | 93 N.C.T. | 91 CENSUS | 93 N.C.T. | 1 CENSUS |
| TOTAL               | 100.0        | 100.0      | 100.0        | 100.0     | 100.0     | 100.0     | 100.0     | 100.0    |
| RESPONDENT          | 75.6         | 82.4       | 75.0         | 77.6      | 76.4      | 83.8      | 72.2      | 81.9     |
|                     |              |            |              | 7.3       | 14.2      | 7.8       | 17.1      | 13.2     |
| NON RESPONDENTS     | 10.4         | 9.1        | 14.3         | 15.0      | 9.4       | 8.4       | 10.7      | 5.0      |
| PARTIAL RESPONDENTS | 14.0<br>10.4 | 8.5<br>9.1 | 10.7<br>14.3 |           |           |           |           |          |

| MEN                 | TO    | TAL       | 15        | 24        | 25 -      |           |           | 55 +      |
|---------------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| men.                |       | 91 CENSUS | 93 N.C.T. | 91 CENSUS | 93 N.C.T. | 91 CENSUS | 93 N.C.T. | 91 CENSUS |
| TOTAL               | 100.0 | 100.0     | 100.0     | 100.0     | 100.0     | 100.0     | 100.0     | 100.0     |
| RESPONDENT          | 75.0  | 82.3      | 74.6      | 77.1      | 75.8      | 83.7      | 71.1      | 81.9      |
| PARTIAL RESPONDENTS | 14.9  | 9.0       | 10.7      | 7.7       | 15.4      | 8.6       | 18.1      | 13.6      |
| NON RESPONDENTS     | 10.2  | 8.7       | 14.6      | 15.2      | 8.9       | 7.7       | 10.8      | 4.5       |
|                     |       |           |           |           |           |           |           |           |

| WOMEN  | TOTAL                |                    | 15 – 3               | 24                           | 25 - 64             |                            | 65                   |                     |
|--|----------------------|--------------------|----------------------|------------------------------|---------------------|----------------------------|----------------------|---------------------|
| WOME!  | 93 N.C.T. 91         | CENSUS             | 93 N.C.T. 9          | 1 CENSUS                     | 93 N.C.T. 91        | CENSUS                     | 93 N.C.T.   9        | 1 CENSUS            |
| TOTAL  | 100.0                | 100.0              | 100.0                | 100.0                        | 100.0               | 100.0                      | 100.0                | 100.0               |
| RESPONDENT<br>PARTIAL RESPONDENTS<br>NON RESPONDENTS | 76.1<br>13.2<br>10.7 | 82.6<br>8.0<br>9.4 | 75.3<br>10.6<br>14.0 | 7.8 <u>.2</u><br>7.0<br>14.8 | 77.1<br>13.0<br>9.9 | 8 <u>3.9</u><br>7.1<br>9.0 | 72.9<br>16.4<br>10.7 | 81.9<br>12.8<br>5.3 |

## TABLE 2. FINAL RESPONSE RATES AND INCIDENCE RATES, FOR PERSONS 15 YEARS AND OVER, UNWEIGHTED DATA, 1993 NATIONAL CENSUS TEST (LABOUR FORCE SAMPLE) AND 1991 CENSUS

| Ý.             | RES      | PONSE (1)   | % POINT      | INC      | IDENCE (2)  | % POINT      |
|----------------|----------|-------------|--------------|----------|-------------|--------------|
|                | 1993 NCT | 1991 CENSUS | DIFFERENCE   | 1993 NCT | 1991 CENSUS | DIFFERENCE   |
| SOURCE         |          |             | (NCT-CENSUS) |          |             | (NCT-CENSUS) |
|                |          | %           |              |          | %           |              |
|                |          |             |              |          |             |              |
| WAGES          | 86.9     | 89.3        | -2.4         | 51.8     | 57.5        | -5.7         |
| SELF-EMP.      | 82.5     | 82.6        | -0.1         | 4.0      | 4.6         | -0.6         |
| FARM SELF-EMP. | 82.4     | 82.1        | 0.3          | 3.0      | 2.0         | 1.0          |
| OAS/GIS        | 84.0     | 84.3        | -0.3         | 13.5     | 11.9        | 1.6          |
| C/QPP          | 83.5     | 84.2        | -0.7         | 13.4     | 11.9        | 1.5          |
| UI BENEFITS    | 83.0     | 83.1        | -0.1         | 10.7     | 9.7         | 1.0          |
| OTHER GOV'T    | 82.6     | 82.9        | -0.3         | 8.6      | 8.5         | 0.1          |
| INVESTMENT     | 83.3     | 84.3        | -1.0         | 19.7     | 24.9        | -5.2         |
| RETIREMENT     | 82.4     | 82.4        | 0.0          | 7.4      | 7.1         | 0.3          |
| OTHER          | 81.6     | 81.7        | -0.1         | 3.4      | 4.6         | -1.2         |
|                |          |             |              |          |             |              |
| TOTAL INCOME   | 87.1     | 91.5        | -4.4         | 73.8     | 76.1        | -2.3         |
|                |          |             |              |          |             |              |
|                |          |             |              |          |             |              |
| SAMPLE SIZE    | 25585    | 4375525     |              | 25585    | 4375525     |              |
|                |          |             |              |          |             |              |

<sup>(1)</sup> CONSIDERED RESPONSE IF \$AMOUNT, "YES" OR "NO" PRESENT (2) CONSIDERED WITH AMOUNT IF \$ AMOUNT OR "YES" PRESENT

SOURCE: CENSUS: IND1013A, IND1013B

The incidence of income sources among the population 15 years and over, that is the proportion of the eligible population reporting a given source, in the N.C.T. was also compared with Census. Other than wages and salaries and investment income, the incidence of each of the sources was within 2 percentage points of Census incidence rates. And even though the incidence of wages and investment income were 5 to 6 percentage points lower than in the 1991 Census, the results were substantially better than in the 1998 N.C.T., where, for example, the incidence of wages was nearly 10 percentage points lower than in the preceeding Census. It is possible that non-reporting of wages by individuals who held partyear jobs in 1992 may have contributed to the observed lower incidence rates.

Under-reporting of investment income has historically been observed in censuses and other income surveys, so low incidence rates in this test is not an unexpected phenomenon. As with the response rates, the incidence rates are considered reasonable given the timing of the test.

## 4. RESPONSE TO INCOME SOURCES - EDIT FAILURE STUDY (E.F.S.)

As mentioned, an Edit Failure Study (E.F.S.) was conducted as part of the N.C.T. to evaluate the impact of follow-up on data quality. Obviously follow-up has a favourable impact upon response rates. As can be seen from Table 3., response by source improved from 11.5 percentage points for Wages to 14.6 percentage points for Other Money Income. With follow up, response to Total Income increased from 68% to 87%, an increase of 19 percentage points. Interestingly, the final response rates to each source of income in the E.F.S. are almost identical to the 1991 Census response rates. However, response to Total Income in the E.F.S. remains almost 5 percentage points below the comparable Census response rate.

Based upon the changes in the incidence rates of each source of income as a result of follow up, it is evident that this field procedure had the most impact upon the incidence of wages (increase of 4 percentage points) and OAS/GIS and C/QPP (both up about 2 percentage points). The increase in wages is especially important as this source represents over 70% of total income. Any substantial under-reporting of this source would likely have a negative impact on the overall quality of Census income estimates. The latter increases reflect the importance of follow up among the elderly; the group demonstrating the most recall problems for detailed income sources.

The changes in the incidence statistics and those in the response rates reinforces the importance of follow up to income data from the Census.



# TABLE 3. INITIAL AND FINAL RESPONSE RATES AND INCIDENCE RATES, FOR PERSONS 15 YEARS AND OVER EDIT FAILURE STUDY COMPONENT OF 1993 NATIONAL CENSUS TEST

| _               |         | ESPONSE (1 | ,           | INCIDENCE (2) |       |             |  |
|-----------------|---------|------------|-------------|---------------|-------|-------------|--|
|                 | 1993 E  |            | 1991 CENSUS | 1993 E        |       | 1991 CENSUS |  |
| SOURCE          | INITIAL | FINAL      | FINAL       | INITIAL       | FINAL | FINAL(3)    |  |
| SOURCE L        | INITIAL | %          |             |               | %     |             |  |
|                 |         | 76         |             |               |       |             |  |
|                 |         |            |             |               |       |             |  |
| WAGES           | 77.6    | 89.1       | 89.3        | 47.9          | 51.8  | 57.5        |  |
| SELF-EMP.       | 69.4    | 83.5       | 82.6        | 3.6           | 3.9   | 4.6         |  |
| FARM SELF-EMP.  | 69.5    | 83.7       | 82.1        | 3.6           | 3.7   | 2.0         |  |
| OAS/GIS         | 73.1    | 85.7       | 84.3        | 14.4          | 16.3  | 11.9        |  |
| C/QPP           | 72.5    | 85.3       | 84.2        | 15.1          | 16.6  | 11.9        |  |
| UI BENEFITS     | 70.2    | 84.4       | 83.1        | 10.2          | 11.1  | 9.7         |  |
| OTHER GOV'T     | 70.1    | 83.8       | 82.9        | 7.9           | 8.5   | 8.5         |  |
| INVESTMENT      | 71.5    | 85.2       | 84.3        | 24.3          | 25.2  | 24.9        |  |
| RETIREMENT      | 69.9    | 83.8       | 82.4        | 9.2           | 9.7   | 7.1         |  |
| OTHER           | 68.3    | 82.9       | 81.7        | 3.9           | 3.9   | 4.6         |  |
| 0111211         |         |            |             |               |       |             |  |
| TOTAL INCOME    | 68.0    | 86.9       | 91.5        | 56.4          | 73.0  | 76.1        |  |
| 101712111001112 |         |            |             |               | • •   |             |  |
|                 |         |            |             |               |       |             |  |
| SAMPLE SIZE     | 7885    | 7885       | 4375525     | 7885          | 7885  | 4375525     |  |
|                 |         |            |             |               |       |             |  |

<sup>(1)</sup> CONSIDERED RESPONSE IF \$AMOUNT, "YES" OR "NO" PRESENT (2) CONSIDERED WITH AMOUNT IF \$ AMOUNT OR "YES" PRESENT

<sup>(3)</sup> BEFORE IMPUTATION FOR NON-RESPONSE SOURCE: CENSUS: IND1013A, IND1013B

## 5. COMPARISON WITH DATA FROM THE SURVEY OF CONSUMER FINANCES AND CENSUS

Weighted distributions of population by size of Total Income, average Total Income and the incidence of income sources among income recipients derived from the N.C.T. were compared with similar data from the 1991 Census and the Survey of Consumer Finances for 1992. Although the inclusion of the income question in the test was primarily to observe the impact of the application of the "Rule of Six" failed field edits on response rates, the response to the various sources, and the quality of the data collected, can also provide an indication of possible new reporting or response problems.

Table 4. provides the incidence of income sources among recipients and the average income from each source from the N.C.T. and the 1991 Census Load Base. The lack of difference in the incidence rates for most sources between the two data sets is encouraging. Only the incidence of investment income, lower by nearly 7 percentage points in the N.C.T., stands out. The under-reporting of this source has been a continual problem over the years for both the Census and other income surveys. However, as mentioned earlier, the timing of the test is likely to have affected the reporting of non-regular or small amounts of investment income realized in the prior calendar year.

A comparison of the average income from each source reveals a major problem. Average income for Wages and Investment income were over twice as high in the N.C.T. compared with Census. Average income for all other sources were also over-estimated, but to a lesser degree. Investigation of approximately 150 questionnaires with at least one income source over \$1,000,000 revealed that key entry errors were the cause of the unexpectedly high estimates. For these records, contrary to instructions, the "cents" values had been captured or generated as dollar values for all responses on the questionnaire. As well, a few other spurious amounts occurred in several instances. For example, of these 150 questionnaires examined, 50 persons reported Investment Income, averaging \$4,155. The N.C.T. file for these 50 respondents reveals an aggregate investment income of \$34.4 million, an average of \$687,563 per respondent. Similar problems exist for each of the other sources. Unfortunately, since the key entry problem was not limited to one or two batches in a single region, without re-keying of the records, the dollar value data in aggregate, and subsequently on average, is not considered useable. For this reason no further comparison of income statistics is attempted with 1992 aggregate or average income data from the Survey of Consumer Finances. These errors underscore the need for clear and effective quality control procedures, especially during key entry, but also during head office processing, where such anomalies are corrected.



TABLE 4. INCIDENCE (1) AND AVERAGE INCOME BY SOURCE FOR POPULATION
15 YEARS AND OVER, 1993 N.C.T. (LFS UNWEIGHTED) AND 1991 CENSUS (UNWEIGHTED)

|                        | 1993      | N.C.T.  | 1991 CENS | US (2)  |
|------------------------|-----------|---------|-----------|---------|
|                        | INCIDENCE | AVERAGE | INCIDENCE | AVERAGE |
|                        | %         | \$      | %         | \$      |
| WAGES                  | 65.0      | 53353   | 67.7      | 24369   |
| NON-FARM SELF-EMP.     | 4.8       | 28876   | 4.7       | 19938   |
| FARM SELF-EMP.         | 2.1       | 12413   | 1.8       | 8734    |
| OAS/GIS                | 12.8      | 5726    | 13.2      | 4610    |
| C/QPP                  | 12.9      | 4857    | 13.1      | 3897    |
| UI BENEFITS            | 9.9       | 5584    | 10.6      | 4057    |
| OTHER GOV'T. TRANSFERS | 9.0       | 6061    | 9.3       | 4859    |
| INVESTMENT INC.        | 21.8      | 10970   | 28.6      | 4871    |
| RETIREMENT INC.        | 7.8       | 16521   | 7.8       | 9862    |
| OTHER INC.             | 3.9       | 7388    | 5.2       | 3760    |
| TOTAL INCOME (3)       | 100.0     | 51311   | 100.0     | 23319   |
| WITH INCOME            | 19,700    |         | 3,590,000 |         |

<sup>(1)</sup> INCIDENCE OF EACH SOURCE AMONG INCOME RECIPIENTS.

<sup>(2)</sup> UNWEIGHTED DATA, PRIOR TO EDIT AND IMPUTATION FOR NON-RESPONSE.

<sup>(3)</sup> SUM OF SOURCES USED FOR TOTAL INCOME, UNLESS ONLY TOTAL PROVIDED.

## TABLE 5. PERCENTAGE DISTRIBUTIONS OF INCOME RECIPIENTS BY SEX, CANADA, N.C.T. (LFS WEIGHTED) AND SURVEY OF CONSUMER FINANCES, 1992

| NCOME GROUP         |  |
|---------------------|--|
| NIDED 45 000        |  |
| JNDER \$5,000       |  |
| 5,000 - \$9,999     |  |
| 10,000 - \$14,999   |  |
| 15,000 - \$19,999   |  |
| 20.000 - \$24.999   |  |
| 25,000 - \$29,999   |  |
| 30,000 - \$34,999   |  |
| 35,000 - \$39,999   |  |
| 40.000 - \$44,999   |  |
| \$45,000 - \$49,000 |  |
|                     |  |

\$50,000 AND OVER

|           | MEN       |        |           | WOMEN     |       |
|-----------|-----------|--------|-----------|-----------|-------|
| 93 N.C.T. | 93 S.C.F. | DIFF.  | 93 N.C.T. | 93 S.C.F. | DIFF. |
|           |           |        |           |           |       |
| 8         | .9 9.     | 1 -0.2 | 17.5      | 15.7      | 1.8   |
| 10        |           |        | 18.5      | 17.3      | 1.2   |
| 10        |           |        | 16.6      | 18.6      | -2.0  |
|           | 4 9.4     | 4 -1.0 | 9.9       | 11.4      | -1.5  |
| 9         | .1 9.4    | 4 -0.3 | 9.5       | 9.6       | -0.1  |
| 8         | .7 8.6    | 0.1    | 7.4       | 8.0       | -0.6  |
| . 8       | .4 8.0    | 0.4    | 6.1       | 6.3       | -0.2  |
| 6         | .8 7.4    | 4 -0.6 | 3.6       | 4.2       | -0.6  |
| 6         | .6 6.3    | 2 0.4  | 2.9       | 2.8       | 0.1   |
| 4         | .2 4.8    | -0.6   | 1.9       | 2.0       | -0.1  |
| 18        | .1 16.0   | 2.1    | 6.0       | 4.2       | 1.8   |

| NUMBER (000'S)  | 8,662 | 9,964 | 8,246 | 9,609 |
|-----------------|-------|-------|-------|-------|
| MEDIAN (1) (\$) | 26625 | 25580 | 14210 | 14534 |
|                 |       |       |       |       |

(1) N.C.T. MEDIAN CALCULATED FROM DISTRIBUTION SHOWN SCF DATA FROM CATALOGUE 13-207



Since the number of records with unusable income data appeared limited, the percentage distributions of men and women by total income size groups were compared with similar distributions from the S.C.F. in Table 5. Other than the highest income group (which contains the erroneous records), the income distribution for men reveals little difference between the N.C.T. and the S.C.F. The distributions for women revealed slightly more differences, especially in the income groups below \$20,000. The N.C.T. had higher proportions of women in the income groups under \$10,000 and a lower proportion in the income groups between \$10,000 and \$20,000. The differences, however, are not that great (less than 2 percentage points in each of the four groups under \$20,000) considering that the S.C.F. data includes edited and imputed responses.

#### 6. ANALYSIS OF RESPONSE TO STEP 10 QUESTIONS

The 1993 NCT questionnaire contained 6 questions, as part of STEP 10 on the questionnaire, designed to elicit response on the difficulty of Census questions, objections to Census questions and usefulness of the Census Guide and Help Line.

Tables 6A. to 6C. summarize the overall response to these questions and the relevance to the Census Income questions.

#### i. DIFFICULTIES WITH QUESTIONS

Overall, about 11% of households indicated that they found one or more of the Census questions difficult. More than half of these households indicated some difficulty with the income question. Many of these responding households provided a written explanation of their difficulty. While it was not feasible to to review all of these comments, an examination of a sample of these records revealed typical responses such as "Figures are estimates", "Can't remember that long ago" or "Had to go to tax records". Most individuals indicating difficulties nevertheless provided (or the CR obtained) income information.

The fact that income data was requested in detail for a time period commencing almost 2 years prior to the test date may have significantly contributed to respondents' difficulties. However, it is encouraging to see that in many cases, in spite of difficulties, respondents provided income information.

#### ii. OBJECTIONS TO QUESTIONS

Nearly 2 in 10 households indicated an objection to one or more of the Census questions. Most of these respondents indicated an objection to the income question (7 out of 10 of all questions objected to). As was the case for those indicating "difficulties", many of these respondents provided a written explanation. A review

## TABLE 6A. DISTRIBUTION OF HOUSEHOLDS BY RESPONSE TO DIFFICULT/OBJECTIONABLE QUESTIONS, 1993 NCT

STEP 10

PART B. DID YOU FIND ANY OF THE TEST QUESTIONS DIFFICULT?

|                | ALL   |       | HHLDS WITH  |            |
|----------------|-------|-------|-------------|------------|
|                |       |       | YES TO      | % WITH Q46 |
|                | HHLDS | DIST. | QUESTION 46 | DIFFICULT  |
|                |       | %     |             | %          |
| TOTAL RESPONSE |       |       |             |            |
| YES            | 1600  | 10.6  |             |            |
| NO             | 9933  | 65.7  |             |            |
| NON RESPONSE   | 3579  | 23.7  |             |            |
| TOTAL          | 15112 | 100.0 |             |            |
| FIRST (1)      | 1537  | 69.2  | 801         | 52.1       |
| SECOND         | 425   | 19.1  | 108         | 25.4       |
| THIRD          | 156   | 7.0   | 41          | 26.3       |
| FOURTH         | 74    | 3.3   | 12          | 16.2       |
| FIFTH          | 30    | 1.4   | 4           | 13.3       |
| TOTAL          | 2222  | 100.0 | 966         | 43.5       |

<sup>(1)</sup> RESPONDENTS COULD INDICATE DIFFICULTIES WITH UP TO 5 QUESTIONS.

## TABLE 6B. DISTRIBUTION OF HOUSEHOLDS BY RESPONSE TO DIFFICULT/OBJECTIONABLE QUESTIONS, 1993 NCT

STEP 10

PART F. ARE THERE ANY TEST QUESTIONS TO WHICH YOU HAVE OBJECTIONS?

HILL DO WITH

|                | ALL   |       | HHLDS WITH    |            |
|----------------|-------|-------|---------------|------------|
|                |       |       | OBJECTIONS TO | % WITH Q46 |
|                | HHLDS | DIST. | QUESTION 46   | OBJECTIONS |
|                |       | %     |               | %          |
| TOTAL RESPONSE |       |       |               |            |
| YES            | 2599  | 17.2  |               |            |
| NO             | 8255  | 54.6  |               |            |
| NON RESPONSE   | 4258  | 28.2  |               |            |
| TOTAL          | 15112 | 100.0 |               |            |
| FIRST (1)      | 2641  | 78.7  | 2122          | 80.3       |
| SECOND         | 422   | 12.6  | 132           | 31.3       |
| THIRD          | 175   | 5.2   | 54            | 30.9       |
| FOURTH         | 73    | 2.2   | 15            | 20.5       |
| FIFTH          | 31    | 0.9   | 5             | 16.1       |
| SIXTH          | 15    | 0.4   | 4             | 26.7       |
| TOTAL          | 3357  | 100.0 | 2332          | 69.5       |

<sup>(1)</sup> RESPONDENTS COULD INDICATE UP TO 6 QUESTIONS.

## TABLE 6C. DISTRIBUTION OF HOUSEHOLDS BY RESPONSE TO USE OF GUIDE QUESTIONS, 1993 NCT

STEP 10

PART D. WAS THE GUIDE HELPFUL?

| ALL   |      |
|-------|------|
| HHLDS | DIST |
|       | %    |

#### TOTAL RESPONSE

| YES     | 2747  | 18.2  |
|---------|-------|-------|
| NO      | 1345  | 8.9   |
| MISSING | 11020 | 72.9  |
| TOTAL   | 15112 | 100.0 |

## PART D. WAS THE GUIDE NOT HELPFUL AND FOR WHAT QUESTIONS?

|           | HHLDS | FUL FOR<br>Q. 46 | DIST |  |
|-----------|-------|------------------|------|--|
|           |       |                  | %    |  |
| FIRST (1) | 91    | 13               | 14.3 |  |
| SECOND    | 17    | . 3              | 17.6 |  |
| THIRD     | 7     | 1                | 14.3 |  |
| FOURTH    | 1     | 0                | 0.0  |  |
| FIFTH     | 1     | 0                | 0.0  |  |
| SIXTH     | 0     | 0                | 0.0  |  |
| TOTAL     | 117   | . 17             | 14.5 |  |

<sup>(1)</sup> RESPONDENTS COULD INDICATE THEY DID NOT FIND THE GUIDE HELPFUL FOR UP TO 6 QUESTIONS

of a sample of these comments revealed that the predominant response written in by respondents against the income question related to the fact that they considered income information to be "Personal" or "Confidential". In most of the observed cases, individuals, in spite of their objections, provided income data.

The large proportion of respondents who indicated an objection to the Census income question should be viewed in light of the following:

- (1) The income question is nearly the last question answered prior to the STEP questions; an overall lengthy task. This fact, coupled with the effort required to provide income data for the prior calendar year (an even more difficult task if proxy responses are also provided), likely acted as a "lightning rod" for respondents' objections.
- (2) Many respondents feel that the "government" is one large institution and that Revenue Canada data is accessible to us, as evidenced by observed responses such as "you already have my tax information" or "see my T4's". Thus for some, providing Census with income data is seen as a duplication of effort.
- (3) the lack of promotion and advertisement of the test is likely to irk some respondents, who may feel they are being unnecessarily canvassed, and generate objections.

#### iii. USE AND HELPFULNESS OF THE GUIDE

Just under 15% of households indicated use of the Census Guide. About one quarter of these respondents indicated they used the Guide to assist in answering the income question. From STEP 10, Part D it was determined that very few respondents indicated that the Guide was not helpful in answering the income question (about 1% of those who so indicated).

The small proportion of respondents who indicated they used the Guide, overall and to help with the income question, does not diminish its usefulness. In the case of income, only the general description of the source of income, with a few examples or exceptions, forms part of the question. And although this brief description suffices for many respondents, those who take the time to use the Guide to ensure proper reporting must continue to be provided with the necessary details.



### INCOME RELATED COMMENTS FROM OTHER REPORTS (T.A.S./FIELD/QUESTIONNAIRE DESIGN)

Appendix A contains a summary of information provided by Telephone Assistance Operators (TAS), CR debriefings and questionnaire design comments related to income. These will assist in our planning and design of the 1996 income question and accompanying guide and the various procedure manuals.

### 8. Executive Summary

- The proposed questions on income for 1996 are identical to the 1991 Census. These questions were included in the 1993 National Census Test primarily to evaluate the feasibility of the proposed new "rule of six" for field follow-up. However, the test results were analyzed to examine other aspects also.
- Response rates for the income questions were lower from the 1993 Test than those obtained from the 1991 Census. This is not a cause for concern, however, since the 1993 Test results were better than those from the 1988 National Census Test.
- As in the past, non-response was highest among the young and the elderly.
- We key entry errors reduced the utility of income data from the Test. The income statistics (e.g. average income from various sources) could not be compared with those from other source because of these errors. (This underlines the need for effective quality control during data capture and head office processing).
- With a slight modification, the field edits for income used in the Test have been accepted.
- Results of the Edit Failure Study reinforce the importance of follow-up for the income questions.
- About 1 in 10 households expressed difficulties with some of the Census questions. Half of these indicated difficulties with the income question(s), with recall problems being the most common source. (This was not surprising consider the long time lag between the test date and the income reference year).
- About 1 in 5 households indicated an objection to some of the Census questions. Most of these objections related to income question(s). The common concern seemed to be the personal or confidential nature of income information.

- Respondents who indicated difficulties and/or objections frequently responded to the income questions. Very few instances of absolute refusal to answer the income questions were seen among these respondents.
- In spite of the limited use of the guide, there is still a need to provide respondents with required explanations for content.8. SUMMARY

# APPENDIX A

INCOME RELATED
COMMENTS FROM

TELEPHONE ANSWERING
OPERATORS, FIELD

DEBRIEFINGS AND QUESTIONNAIRE DESIGN 1993 NCT

### NATIONAL CENSUS TEST '93

Comments received from the National Census test related to income.

## Telephone Assistance Service (TAS):

Of 944 total queries received, 159 (16.8%) related to Income.

Comment: The table provided to aid in retrieving information from the income tax statement is not clear. A copy of the "gross income section" of the income tax report should be included on the census form.

Comment: Income SM observation: One person called TAS officer to ask "who should answer income question". The officer answer was: "Persons over 15 years of age who work".

### COGNITIVE RESEARCH: TORONTO AND OTTAWA (ENGLISH)

Comment: In some cases, respondents said they would "guess" rather than provide exact figures for income.

Comment: Some respondents admitted that they would not include all sources of income, such as unemployment benefits while on a seasonal layoff, or alimony since it was "nobody's business".

Comment: ... most said they would give rounded estimates only.
No "cents" were reported.

Respondents' suggestions: Remove "Cents" from response boxes, or emphasize that exact amounts including cents are required.

Comment: Most respondents had to read the actual question more than once, or twice.

Respondents' suggestions: Simplify the wording of the question.

Comment: Some respondents commented that the response of "No" did not fit when answering for each section separately. By the time respondents began reading (a) and (b) they had completely forgotten what the original question was asking.

Respondents' suggestions: Change "No" to None, or word each of (a) to (j) as questions rather than statements.

Comment: For Q46 (g) and (h), some respondents read only the bold or the first line of each statement, therefore did not see examples and often missed applicable sources of income.

Respondents' suggestions: Use bold lettering for the examples.

Comment: Two participants interpreted a loss as meaning that they have "lost income in comparision to last year because of 'Rae Days'". They thought that decreases in income because of cut backs should be included as a loss.

Respondents' suggestions: Clearer explanation or examples of when a loss should be indicated would be helpful.

Comment: A respondent did not understand that "all sources" in the instructions referred to (a) to(j).

Respondents' suggestions: In the instruction, remove the "bullets", use bold and a larger font, and move the instruction section closer to the left, directly lined up with the number "46".

Comment: A respondent with RRSPs was not sure if accumulated interest was to be reported at (h), even if no money had been withdrawn from RRSP plan.

Respondents' suggestions: Add a "do not include..." or "include RRSP interest accumulated" in (h).

Comment: A few respondents entered their pensions at(a)
instead of at (i). Once they read (i) they made corrections
without being asked to do so.

Respondents' suggestions: Since there are more retired people than there are farmers, change (i) to follow (b).

Comment: At Q46 (K), respondents did not understand why there was a "yes, no, loss" response required. Most marked "yes", while some respondents just indicated their total income. No one indicated a Loss.

Respondents' suggestions: Change at least (K) to "What is this person's total income...?" Question format rather than a statement is easier to answer here.

# COGNITIVE RESEARCH: MONTREAL AND OTTAWA (FRANCAIS)

Comment: Private question. Revenue Canada already have this information.

Respondents' suggestions: Income groups should be used.

Comment: The word "Source" is not clear. Respondents associate "Source" with "Revenu" but not with "Perte".

Respondents' suggestions: Replace "Source" or terminate the question after the word "pertes".("..subi des pertes des sources...")

Comment: Respondents read only the first line of the instructions.

Comment: It is not clear in the case of "Pertes" that we have to mark the "oui" or "non" in addition of the "Pertes" cercle. Should we also indicate the amount of "Pertes"?

Respondents' suggestions: Change the instructions: "Pour chaque choix, répondez "oui" si vous avez des revenus ou des pertes, ou "non" dans le cas contraire". Add an arrow between "perte" and the box to indicate that an amount could be reported.

Comment: For a few respondents its not clear that "Revenu total" means the addition of all sources.

